CLAIMS

1. Vertebral anchoring device comprising a connector (2), a connecting rod (10) and a polyaxial anchoring screw (3) having a spherical head (15) and a screw-threaded body (16) whose external diameter **d** at the summit of the screw threads (17) is greater than the external diameter **a** of the spherical head (15), characterized in that each connector (2) is constituted by a connecting element (4) comprising vertical branches (5, 6) delimiting a U shaped opening (7), and by a locking clip (8) provided with a pressure screw (9) for blocking in the bottom of the U the connecting rod (10), said connecting element (4) being pierced at its middle with a vertical bore (11) permitting receiving opposite the opening (7) a blocking device (19) in the form of a ring (20) and a screw-threaded socket (21) for emplacement and positioning of the connector (2) on the spherical head (15) of the anchoring screw (3).

2. Vertebral anchoring device according to claim 1, characterized in that the central bore (11) comprises from the bottom of the U shaped opening (7) a first circular portion (12) and a second screw-threaded portion (13) whose internal diameter is greater than that of the first portion so as to define an internal shoulder (14).

3. Vertebral anchoring device according to claim 2, characterized in that the internal diameter **d1** of the circular portion (12) of the central bore (11) is less than the external diameter **d** of the screw-threaded portion (17) or **a** of the spherical head (15) of the anchoring screw (3).

4. Vertebral anchoring device according to claim 1, characterized in that the ring (20) comprises a smooth cylindrical portion (22) bordered at one of its ends by a small collar (23).

5. Vertebral anchoring device according to claim 4, characterized in that the external diameter of the cylindrical portion (22) is slightly less than the internal diameter **d1** of the portion (12) of the central bore (11), whilst the external diameter of the small collar (23) is greater than the internal diameter **d1**.

6. Vertebral anchoring device according to claim 1, characterized in that the socket (21) is constituted by a cylindrical body having a screw-threaded external surface (24) and an internally opening bore (25) provided at one of its ends with a diametric reduction forming a bearing surface (26) of part spherical shape.

7. Vertebral anchoring device according to claim 6, characterized in that the socket (21) comprises on its external surface and in prolongation of the screw-threaded portion (24) an un-screw-threaded shoulder (27) and opposite the shoulder (27) notches (28).

8. Vertebral anchoring device according to claim 6, characterized in that the socket (21) comprises in a longitudinal direction two opposite slots (29, 30) partially cutting the length of the cylindrical body into two separate and identical portions (31, 32).

9. Vertebral anchoring device according to claim 8, characterized in that the two separate portions (31, 32) are interconnected at the level of the shoulder (27) by a bridge (33) delimiting on the one hand a maximum opening before rupture of the slots (29, 30) at the level of the bearing surface (26) of part spherical shape, and on the other hand a maximum elasticity of the socket (21).